

ORIGINATING TECHNOLOGY/ NASA CONTRIBUTION

In today's fast-paced business world, there is often more information available to researchers than there is time to search through it. Data mining has become the answer to finding the proverbial "needle in a haystack," as companies must be able to quickly locate specific pieces of information from large collections of data. [Perilog](#), a suite of data-mining tools, searches for hidden patterns in large databases to determine previously unrecognized relationships. By retrieving and organizing contextually relevant data from any sequence of terms—from genetic data to

musical notes—the software can intelligently compile information about desired topics from databases.

Perilog was invented by NASA's Dr. Michael McGreevy, a principal investigator at the System Safety Research Branch under the Information and Computational Sciences Directorate at Ames Research Center. McGreevy applied his research on presence-based search engine and data-mining technology to analyze aviation safety incident reports from the Federal Aviation Administration (FAA). As part of NASA's effort to dramatically reduce the potential for commercial aviation accidents, Perilog was designed to support the FAA's Aviation Safety Reporting System (ASRS). This system receives, processes, and analyzes

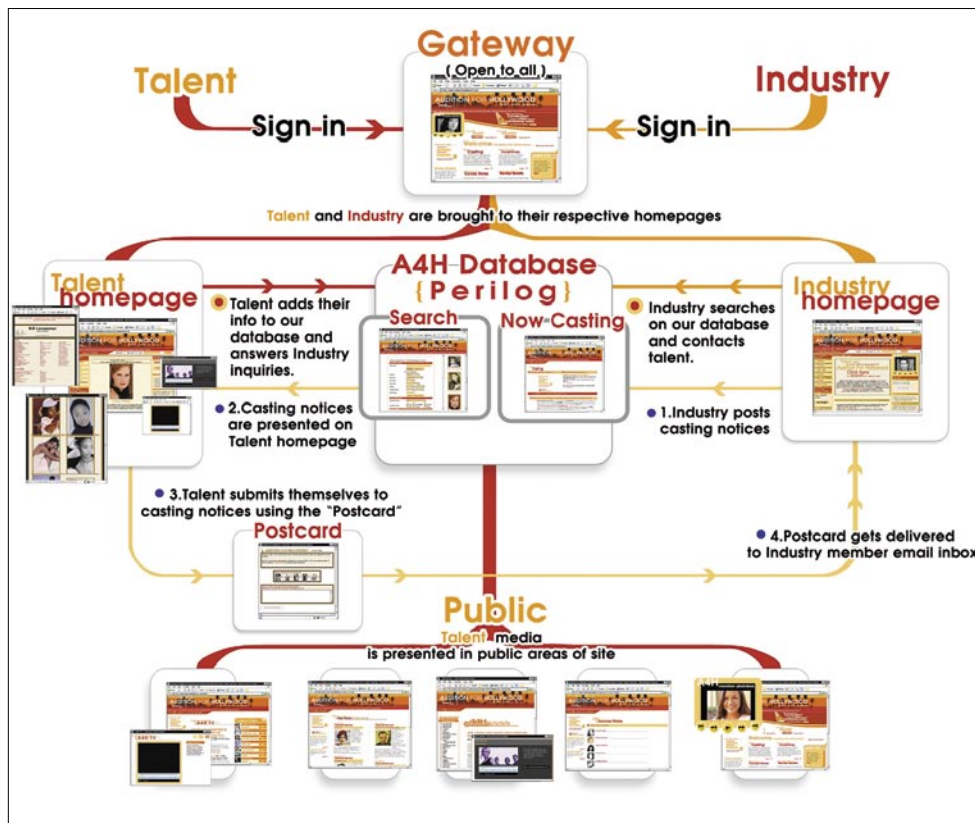
reports of unsafe occurrences and hazardous situations that are voluntarily submitted by pilots, air traffic controllers, and others in the airline industry. Perilog demonstrated its power on the ASRS's database of thousands of documents by drawing significant air safety connections out of the disparate data.

By unearthing relevant data to the research subject and then measuring contextual associations between term pairs within a text, Perilog produces models that capture the text's structure. The software then statistically compares these models to measure their degree of similarity to a query model, develops a ranking, and presents the search results to the user. Perilog also gives the user access to powerful query tools that can perform tasks such as generating search options automatically.

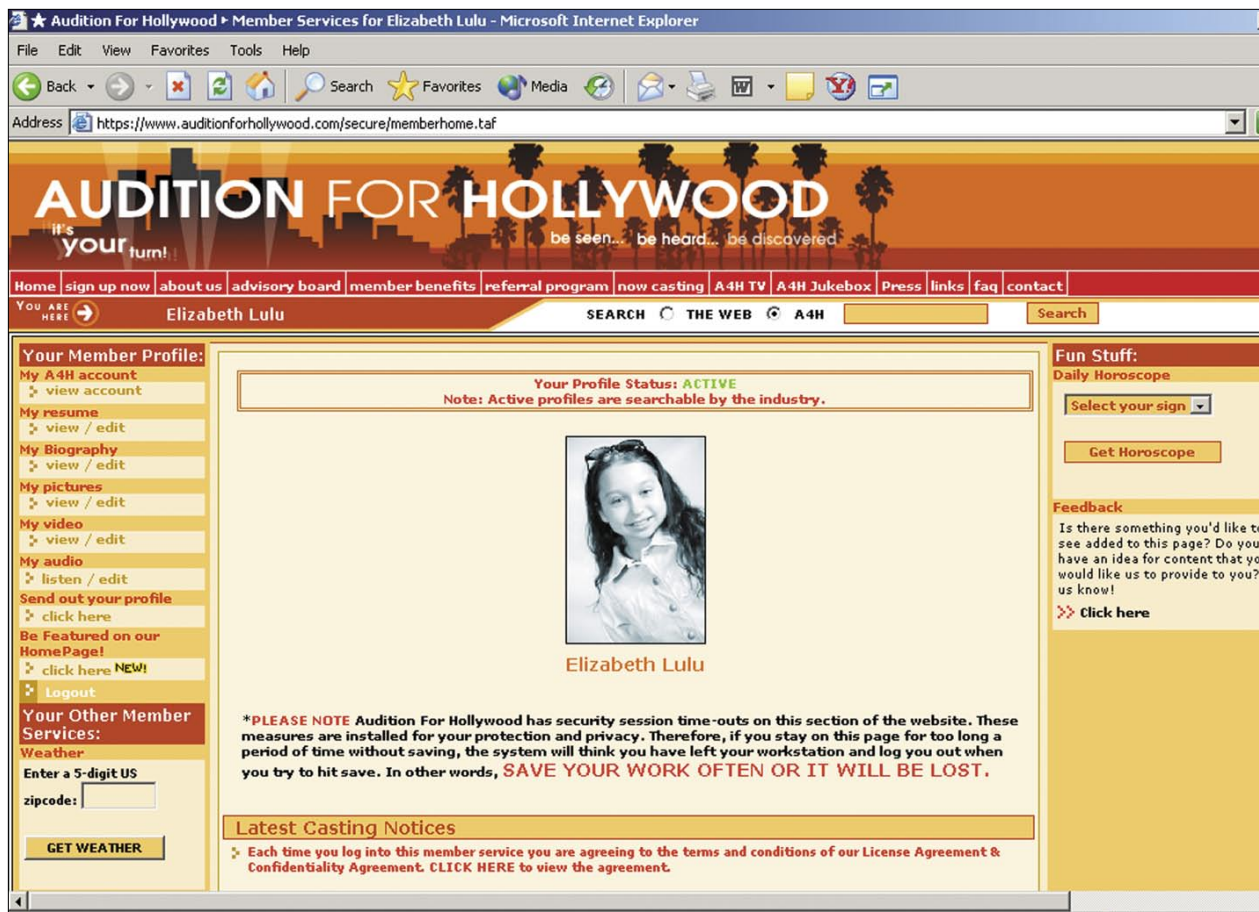
PARTNERSHIP

NASA's Far West Regional Technology Transfer Center (RTTC) worked with Ames to promote Perilog and identify companies interested in obtaining a license agreement for the technology. [Audition For Hollywood](#), an Internet company based in Los Angeles, California, attended Ames' licensing briefing for Perilog. Upon reviewing the technology's capabilities, the company determined that Perilog would be a good fit for its casting service, which is designed to match talent in the performance industry with high-profile entertainment executives. The Far West RTTC helped Audition For Hollywood prepare its license application and commercialization plan for NASA. The Ames Technology Partnerships Division then negotiated and executed the license.

David Lackner, Ames' Technology Partnerships manager, described the licensing agreement with Audition For Hollywood as "an unexpected but exciting opportunity to broaden our charter of making NASA's internally developed technology available to private sector companies." He continued to explain, "Typically, we license our inventions to companies in the medical or manufacturing fields.



This diagram illustrates how Audition For Hollywood's Internet service connects talent with entertainment industry opportunities. NASA's data-mining technology, Perilog, plays a key role in the process.



Members of the Audition For Hollywood service see a personal profile page like this one when they log on to the system.

Pop Star,” into the search engine, Perilog would be able to match the request to an actress’s statement such as, “I am a Brazilian teenager with training in dance and the vocal range of Whitney Houston.”

Since Perilog is not limited to locating “keywords” within structured database résumé fields, this refined and expanded search and match capability increases the likelihood of finding the right person for a role. It also enables matches for people that might have otherwise been overlooked. Casting directors benefit because they can narrow down a list of people who will truly qualify for a role. Perilog enables the person doing the searches to indicate how closely they want the results to match their criteria.

According to recent market surveys, there are approximately 200,000 television series, television shows, feature films, television commercials, documentaries, animated series, and other productions being created worldwide on an annual basis. Audition For Hollywood offers a unique opportunity for hundreds of thousands of aspiring actors, musicians, and models to be discovered for these opportunities through membership subscriptions to the company’s online service. The service takes away the restrictions of geography between the aspiring talent pool and casting directors, as people across the globe can subscribe and be recognized for appropriate roles without having to travel to open casting calls. Entertainment professionals are taking notice of the cutting-edge technology. Within 6 months of the company’s beta launch of its Web site, there were users from over 110 countries.

Our agreement with Audition For Hollywood is our first foray into the entertainment industry, and we are delighted that Perilog adds value to Audition For Hollywood’s business strategy.”

PRODUCT OUTCOME

Audition for Hollywood is using Perilog in conjunction with its own proprietary system in an effort to revolutionize the entertainment industry’s casting process. The company’s Internet-based service matches the requirements

of entertainment industry decision makers with the skills of aspiring talent involved in all entertainment segments, including actors, musicians, dancers, models, and writers.

Perilog enhances the company’s Application System search engine by integrating subjective criteria with objective criteria. For example, previous matching services could only identify objective information such as height, weight, and hair color. Perilog allows subjective information, such as personality and ethnicity, to factor into the search. According to the company, if a producer entered, “Exotic